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ABSTRACT

The faculty activity analysis describes the time faculty spend in various professional activities. Faculty time is expressed in terms of hours or in terms of percent of the total work effort. Various forms of the analysis are discussed. Each form emphasizes categories of faculty time including: instruction, research, professional development, and internal service. The data derived from the analysis can be used to identify the faculty component of instructional costs; determine faculty activity patterns; and determine faculty course load patterns. (MJM)

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FACULTY ACTIVITY ANALYSIS: ITS ROLE IN THE EVALUATION OF FACULTY

Michael O. Stewart

PROBLEM

Under the guises of accountability and of evaluation of faculty, several states have recently passed legislation requiring faculty to teach a minimum number of credit hours per semester or quarter. In many other states such legislation has been introduced but not enacted (Hodgkinson, 1973; Senate Bill 601, State of Kansas, 1972).

One of the reasons such legislation is being considered is that the lay person does not know or understand what, in fact, faculty do. This lack of knowledge can, in many instances, be explained by the "public school syndrome," which most lay people understand. That is, public school teachers generally work from 8 a.m. to 4 p.m. and their "production" is measured in terms of classes or students taught, or in terms of a full day of classroom teaching. On the other hand, college and university faculty are evaluated in terms of credit hours or semester credit hours taught. These measures are foreign to many lay people, and furthermore, they are not compatible with the evaluation criteria associated with the "public school syndrome."

Another problem which occurs on occassion is one of self-observation. That is, legislators or other lay persons who live in a college community observe first hand, or hear second hand of "Professor X" who is always working in his yard or who is home during the day. Whether "Professor X" was productive during this time becomes immaterial and his alleged malfeasance has been generalized to the entire academic community.

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How can one counteract these two problems which have been identified? It appears that one attack on these problems is to have data available which explain what faculty do. One source of such data is a faculty activity analysis which describes the time faculty spend in various professional activities.

Relevant Literature

Faculty work load studies are not new. Blackburn (1971:26) noted that, "From a paucity a decade ago, the state of the art [of research on faculty] has expanded so rapidly that the truth of the matter is that there is probably more available research on academic men that on any other occupational group." A review of the literature will validate that the average number of hours worked per week is 50+ (e.g., Axt, 1960; Bullard, 1973; Bunnell, 1960; Chronicle, 1974; Doi, 1961; French et. al., 1965; Kansas Board of Regents, 1972; Knowles and White, 1939; McElhaney, 1959; Stecklein, 1961; Stickler, 1960; Wheeler, 1948; and Yeager, 1956).

Limitations

A faculty activity analysis in not a panacea for the problem of ascertaining how faculty spend their time. It has some built-in limitations. The first and foremost limitation is that it is a self-report instrument. Partial validation of the accuracy of the information may be obtained by requiring some administrative official, such as a dean or department chairman to review and sign the activity analysis forms. It has been contended that the credibility of such instruments is in question. Without question, this survey approach has limitations, but the literature verifies the fact that even if the information is inaccurate, it is, nevertheless, uniformly and consistently inaccurate.

Furthermore, studies have shown that a survey instrument can collect reasonably accurate data (Manning and Romney, 1973; Lorents, 1971). Most institutions are more interested in knowing the relative amounts of time devoted to research or instruction rather than knowing to a high level of accuracy what each faculty member is doing.

Additional studies have shown that the results of such a survey may be subject to bias (Manning and Romney, 1973). Sullivan (1973) found a significant difference among academic disciplines between the mean number of hours reported in classroom instruction on a survey questionnaire when compared to these same activities reported in a diary. The amount of bias among four academic discipline groups was as follows in hours per week: professional schools 6.1 hours; social sciences 3.8 hours; physical and quantitative sciences 2.1 hours; and arts and sciences 18.7 hours.

A final concern about conducting a faculty activity analysis is faculty acceptance (Manning and Romney, 1973). The degree of acceptance appears to be a function of: (1) degree of faculty autonomy; (2) number of times an activity has been conducted; (3) amount of departmental interest in using the data; and (4) sources of the request for information.

Design of Instrument

What exactly is a faculty activity analysis? It is normally a form on which the faculty member records his activities for a given period of time -- usually a week. Time may be expressed in terms of hours or in terms of percent of the total work effort. Each approach has its own merits but for purposes of comparison, recording the number of hours is preferred.

Since more data is desired than just the total number of hours worked, various categories of activity are defined. These categories will be an elaboration of traditional college missions of teaching, research and

public service. In the Kansas Board of Regents study (1972) the following categories were used: direct instruction, assisting instruction, sponsored research, unsponsored research, assisting in research, administration, advising and counseling, professional development, professional service, departmental governance, college or university governance, and other activities.

The National Center for Higher Education Management Systems (NCHEMS) has attempted to standardize faculty activity analysis procedures by developing a model which permits a certain degree of flexibility while providing commonalty for the exchange of information among colleges (Manring and Romney, 1973; Romney, 1971; and Romney, 1973).

The NCHEMS instrument utilizes the following activity categories: teaching; research, scholarship, and creative work; internal service; and public service. Each of these activities has subcategories.

Uses of Data

What are the uses of faculty activity data? Uses include: (1) identification of the faculty component of institutional costs; (2) determination of faculty activity patterns; and (3) determination of faculty course load patterns.

The identification of the faculty component of institutional costs is important data which can be used to explain to legislatures and others the complex nature of a college or university. Faculty activity data reflect the full professional life of faculty, i.e., a full-time instructional staff member does more than spend time in the classroom. In addition, faculty cost may be distributed to institutional activity centers in proportion to the faculty time devoted to each activity center. This is a necessary step to implementing NCHEMS' resource requirements prediction model (RRPM) or any

other budget system which is empirically derived and based on the "zero base" principle. A concurrent effect is the identification of non-compensated activity which then can be ignored in the costing process. There are several existing structures which are available for studying faculty activity patterns. These include the faculty activity categories already mentioned. A second structure is the program classification structure (PCS) categories developed by NCHEMS: instruction, research, public service, academic support, student service, institutional support, and independent operations. Another structure is one also developed by NCHEMS called outcome categories. These consist of desired college objectives of: student growth and development; development of new knowledge and art forms; community service and development; and inseparable combinations of the previous three categories. In this structure "respondees" are asked to indicate how they think their activities relate to the general instructional outcomes or objectives of the college. While the necessary identification and refinement of institutional objectives is worthwhile, the author questions whether faculty members can adequately differentiate their work effort into these categories.

Two available measures for studying faculty activity patterns have been mentioned already (hours and percent of time). Other measures such as full-time equivalency (FTE) and costs are other measures which can be used.

Inherent with any faculty activity analysis is an analysis of the faculty member's teaching load. Available structures for studying faculty course load patterns are level of course and the method of instruction.

The measures most often associated with faculty load studies are: enrollment, credit hours, contact hours, preparation time, and total hours per course. These measures are often captured on a faculty activity analysis.

To re-emphasize the purposes of a faculty activity analysis, the author would like to quote an NCHEMS report (Manning and Romney, 1973:4).

1. Costing: Faculty compensation can be distributed to institutional programs in accordance with the time faculty spend working in each program.

2. Planning and Management: An institution can study the impact of alternative assumptions such as higher teaching loads or decreased research funding on faculty activity patterns.

3. Institutional Research Studies: The faculty activity information provides a data base for further studies on what faculty do and how their activities influence the outcomes of an institution's programs.

4. External Reporting: A faculty activity survey is a source of information for reporting faculty workloads and faculty information to various funding sources.

USE IN FACULTY EVALUATION

The introductory paragraph of the appendix on faculty activity analysis in the Kansas Board of Regents study (1972:55) seems to set the stage for the interface of the faculty activity analysis with the legislators' and laymen's call for evaluation of faculty and of the institution of higher education itself.

> Institutions of higher education are increasingly being called upon to account for the stewardship of their funds, not only in terms of their amounts and allocation, but also the benefits gained therefrom. From time to time, questions are raised about the characteristics, duties and workload of faculty. Legislators wish to know what the public is getting for its tax dollar. Limited resources, rising costs, increasing numbers of students and the necessity of improving quality likewise present the college administrator with a difficult array of questions.

The faculty activity analysis attempts to display the variety of activities which constitute the professional workload of faculty members. It makes no attempt to establish priorities or the relative importance of various activities. It presents descriptive data. In this sense, it constitutes a very important role in the evaluation of faculty. Such a survey describes what faculty do.

One of the problems associated with any lay group is that it must be educated as to the mission, objectives, and operation of a college or

university. Consequently, such a survey can become the cornerstone of explaining the complexity of an educational institution. The total faculty workload will contrast sharply with the concept of a 40-hour work week and will dramatize the differentiation between professional educator-scholars and workers in other fields.

One of the problems encountered in discussions of accountability is that the wrong questions are being asked. When legislators are evaluating faculty, they are doing it in quantitative terms (number of hours worked) and not in qualitative terms of: Is the teaching, research, or public service activity any good? To answer these kinds of questions one needs other tools which can be used in the evaluation of faculty. In the area of teaching, one could use Hoyt's and Owen's (1972) "Student Reactions to Instruction and Courses" instrument. On most campuses today, some student evaluation of instruction form is in use, although the sophistication, validity, and reliability of such instruments vary greatly. For a more complete discussion of evaluation of instruction, see Astin and Lee, 1967; Birnbaum, 1966; Blackburn, 1971; Clark, 1961; Clark and Blackburn, 1971; Gustad, 1967; Guthrie, 1949; Hoyt, 1969a; 1969b; Isaccson, et. al., 1964; Megaw, 1967; Rothwell, 1968; and Shoben, 1967.

The evaluation of research is extremely difficult. This problem has been explored by Bayer and Folger, 1966; Cartter, 1966; Clark, 1961; Crane, 1965; Manis, 1951; Meltzer, 1949, and Voeks, 1962. Craeger (1967) and Bayer and Folger (1966) have suggested the use of citation indices which list citations by the senior author and the citing author to evaluate research. Citation counts provide a natural weighting of publications and circumvent the quality versus quantity dilemma. The Science Citation Index which has been published for some time, and the relatively new Social Sciences Citation Index provide two sources for evaluating research in this manner.

Essentially no work has been done in the evaluation of public service activities. Until adequate evaluative tools are available, the faculty activity analysis may be the only tool available to describe public service activity.

ANALYSIS OF COST

One of the topics which comes up in discussions of accountability and evaluation of instruction is cost associated with instruction.

> Costs of instruction are affected by numerous factors working in combination. Primary among those factors appear to be: size of classes (student demand), level of instruction, and faculty salaries. Other factors which probably contribute to cost differentials include volume of teaching activity, method of instruction, availability of adequate physical facilities, expenditures for supplies and equipment and secretarial assistance [Kansas Board of Regents, 1972:62].

Direct salary costs are normally used as the basis for cost figures derived from a faculty activity survey. While there are other costs noted above, faculty salary costs represent the largest single expense item. Salary cost can be then computed for each activity reported in accordance with the amount of effort devoted to that activity by each faculty member.

In the Kansas Board of Regents study (1972:56):

> Cost per student credit hour was obtained by dividing total salary costs for a given level of instruction by the total number of student credit hours produced. Costs associated with non-instructional activities (administration, counseling, unsponsored research, professional development, etc.) were "charged" against each level of instruction in proportion to its credit hour share of the total instructional load. While other methods of allocating costs of non-instructional personnel to credit hour costs might be used, i.e. prorating costs in proportion to salary or EFT at each level, arguments for the validity of one method over another are inconclusive.

CONCLUSIONS

The nature, uses, and limitations of a faculty activity analysis have been discussed. It is a descriptive evaluative tool that has become a part

of academia. It is not a new tool, but it is one that is inherent in budgetary models, such as RRPM, and in accountability studies. Given its limitations, the faculty activity analysis is useful in cost studies, internal planning and management, institutional research studies and external reporting. The faculty activity analysis is the quantitative basis for evaluation of faculty. Faculty evaluation needs to have both qualitative and quantitative indices. Possible qualitative evaluation tools include both evaluation of instruction instruments (Hoyt and Owens, 1972) and evaluation of research tools such as the Science Citation Index and the Social Sciences Citation Index.

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